



Name: \_\_\_\_\_

Mr. Tiénou-Gustafson & Mr. Bielmeier

Geometry, Period \_\_\_\_\_

Due Date: Fri, 23 Jan 2015

HW88 - Distance Formula

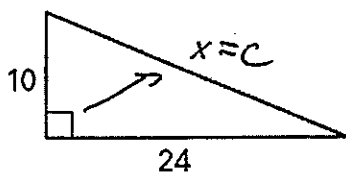
**Geometry  
Homework**

Failure to show work on all problems, watch video, or use complete sentences will result in a LaSalle.

Form A

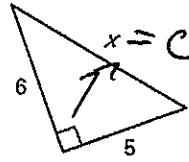
1) What is the Pythagorean Theorem? \_\_\_\_\_

2) Find the missing side length. Reduce all radicals.

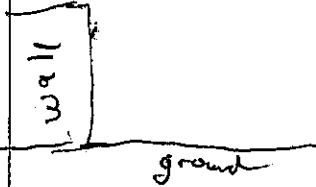


$$a^2 + b^2 = c^2$$

3) Find the missing side length.



4) The top of a ladder rests against a wall, 13 feet above the ground. The base of the ladder is 8 feet away from the wall. What is the length of the ladder, rounded to the nearest whole foot? DRAW A PICTURE & solve.

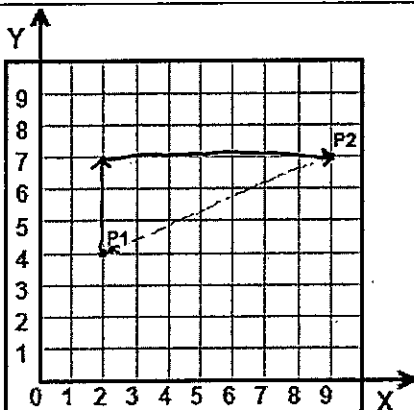


5) Ed wants to make a wheel chair ramp from his driveway to the top of his front porch. His porch is 1 foot high. The distance from his porch to his driveway is 16 feet. How long will the incline be? DRAW A PICTURE & solve.



6) What is the distance formula?  $d = \sqrt{(\quad)^2 + (\quad)^2}$

7) Does it matter what order you write your  $x_1$  and  $x_2$  or  $y_1$  and  $y_2$  value? Why or why not?



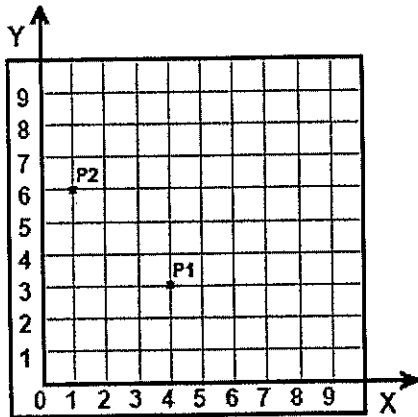
8) (a) Draw a right triangle in the coordinate plane below with P1 & P2 as two of the vertices. Label the three vertices of your triangle with their (x, y) coordinates.  
(b) Find the length of the shorter leg by calculating the rise (change in y) of the triangle.

(c) Find the length of the longer leg by calculating the run (change in x) of the triangle

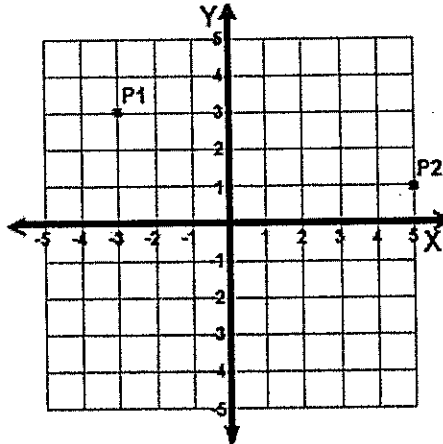
(d) Find the length of the hypotenuse using the Pythagorean theorem.

(e) Find the distance between P1 & P2 using the distance formula.

- 9) What is the distance between points P1 (4, 3) and P2 (1, 6) below?



- 10) What is the distance between points P1 (-3, 3) and point P2 (6, 1) below?



- 11) Find the distance between (-6, -4) and (1, 7).

## Quadratics Big Rocks Review!

We have 2 more Quadratics Big Rocks remaining before they are finalized in the gradebook. Look at the types of questions you need to be able to answer. Define each underlined word. Then solve the questions:

Pebble 1 & 2: Simple Quadratics	Pebble 3: Manipulating solutions	Pebble 4: Complex Quadratics
<p>Ex 1: Find the <u>factors</u> of <math>x^2 - 3x + 2</math>.</p>	<p>Ex 1: Find the <u>sum</u> of all the <u>roots</u> of <math>2x^2 + 12x - 144 = 0</math>. (Hint: make your life easier-- factor 2 out <u>before</u> factoring binomials.)</p> $2(x^2 + 6x - 72) = 0$	<p>Ex 1: A baseball is thrown at <u>height</u> <math>= -16s^2 - 80s + 96</math>. Find how many seconds (s) before the ball <u>hits the ground</u>?</p>
<p>Ex 2: Find the <u>solutions</u> of <math>x^2 + 7x = -10</math>.</p> $x^2 + 7x + 10 = 0$	<p>Ex 2: Find the <u>product</u> of the <u>values of x</u> for <math>x^2 - 36 = 0</math>.</p>	<p>Ex 2: Find the <u>fully</u> factored form of <math>-6s^2 + 12s + 48</math>?</p> $-6(s^2 - 2s - 8)$

With 2 Big Rocks left, including 1 tomorrow, which pebble(s) do you still want to improve on? \_\_\_\_\_ What's your plan?

**Define Your Pride.** 